

ABSTRACT OF THE DISCLOSURE

A writing head (15) of a pattern writing apparatus has an LD board (20) having a plurality of semiconductor lasers, a fiber coupling part (21), optical fibers (22), an optical
5 waveguide array (23) having a plurality of optical waveguides, mirrors (24, 28), optical units (25, 27, 29) and a polygon mirror (26). In the pattern writing apparatus, a large number of light beams generated in the LD board (20) are aligned by optical waveguide array (23) at a reduced pitch with high precision and deflected by the polygon mirror (26) for scanning a substrate (9). This achieves size reduction of the apparatus and allows high-speed writing
10 of a high-definition pattern on a substrate (9).